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ABSTRACT

Since one way to study a non-reading primary child's phonics knowledge is to examine his/her invented spelling, a researcher's quandary led to a quasi-experimental design study, employed to answer three questions: (1) Do primary non-readers possess phonics knowledge? (2) Do primary non-readers possess phonemic awareness? and (3) Do primary non-readers spell at a high developmental level? If many reports and authorities are accurate, findings should be that non-readers lack these things, hence their inability to read. Subjects were 50 primary students from a small rural city in the southeastern United States, identified by their teachers as non-readers. As part of their routine, these children were instructed from highly phonetic basal readers and experienced daily drills from a commercially prepared phonics program. Following a screening, 26 students were identified as reading less than 80% of the words from a passage in their primer and were classified as non-readers. After some were excluded for various reasons, the final sample was comprised of 21 children. The children were tested individually, and findings revealed that these students were phonetically knowledgeable, possessed phonemic awareness, and could spell at a level which includes the recognition of letter name vowels, consonants, and some short vowels. What was apparent was that they had been taught to use only one cueing system--phonics. If children actively construct knowledge through assimilation and re-inventions, then the approach to the teaching of reading must be to provide support for every child in his/her development of all three cueing systems. (Contains 3 figures and 17 references.) (NKA)

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Running head: PHONICS, PHONEMIC AWARENESS, AND DEVELOPMENTAL SPELLING

A Study of the Knowledge of Phonics, Phonemic Awareness, and Developmental Spelling Ability in Primary Non-Readers

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A Study of the Knowledge of Phonics, Phonemic Awareness, and Developmental Spelling Ability in Primary Non-Readers

Controversy was sweeping our nation during the decade of the seventies as we faced issues regarding Viet Nam, abortion, civil rights, and economic stability. This state of confusion and unrest paralleled itself within the realm of education as well, where there was great division regarding the most effective way to teach beginning reading. About this time, I decided to leave full-time public school teaching and become a stay-at-home Mom, which I did for the next twenty years. Upon re-entering the education scene in the nineties, I found, to my surprise, a variation of this same struggle within the teaching field that had been raging in the seventies! As I believe primary school teachers to be one of the most influential forces in a child's life, I had assumed the scientific research surfacing over two decades ago would now be strongly entrenched in our early childhood programs, enriching the education of young children everywhere. Having been prematurely holistic in my own teaching strategies over twenty years ago, I now wanted to investigate the existing body of literature on beginning reading instruction. Not surprisingly, phonics was still center stage, but something called phonemic awareness was also considered to be a pre-requisite for success in reading.

My own prior knowledge includes a mental file folder on phonics instruction. This is due to the fact that before changing my personal teaching strategy to a more constructivist approach, I had, for a short time, instructed seven year olds in a plethora of phonics rules including such constructions as digraphs, diphthongs, and schwas! Phonics, the ability to assemble words additively by small sound segments, was then believed to aid in word recognition and therefore, to facilitate comprehension. The literature supporting this initial, explicit, phonics instruction was

based on the 1967 work of Jeanne Chall entitled, Learning to Read: The Great Debate. In this study, Chall claimed to have found reading advantages for children through third grade who participated in programs that included systematic phonics instruction. According to Chall, this "reading advantage" existed for children of lower socioeconomic backgrounds and also, for children with low-level abilities upon entering first grade (Chall, 1967). Some years later, Marilyn Adams contributed to the body of knowledge that supported initial, direct instruction in phonics with her book, Beginning to Read: Thinking and Learning About Print. And finally, acting National Institute of Child Health and Human Development Chief, Reid Lyon, has stated, "There is no way to read if you are not very facile in the use of phonics" (Palmaffy, 1997). It is evident that proponents thrive who believe phonics and phonemic awareness to be the keys by which we will see early reading successes for children. After all, one of the leading teacher publications prints the following advertisement: "Publishers for Math, for Phonics, for Success."

According to the Committee on the Prevention of Reading Difficulties in Young Children, phonemic awareness is the ability to hear and separate orally the phonological units of sound in a word that make a difference in meaning. Because these phonemes are represented by alphabetic combinations, they found phonemic awareness to be essential in order for a child to understand the logic of phonics and spelling, both deemed by this committee as primary attributes for beginning reading. In fact, Stephen Krashen made the statement that "many policy makers assume children must possess phonemic awareness to learn to read and recommend (and sometimes require) direct teaching (training) of phonemic awareness." (Krashen, 1999).

Again, as in the seventies, I found myself intrigued by primary non-readers I saw in elementary schools and wanted to investigate whether these students were indeed phonetically

aware and possessed phonics information. Since another way to study a child's phonics knowledge is to examine his/her invented spelling, my quandary led to a quasi-experimental design study, which was employed for the purpose of answering three questions. Do primary non-readers possess phonics knowledge? Do primary non-readers possess phonemic awareness? Do primary non-readers spell at a high developmental level? If the cited reports and aforementioned authorities are accurate, then one should find that non-readers lack that vital phonics knowledge, aren't phonemically aware, and don't spell at a high developmental level, hence their inability to read.

My study consisted of 50 primary grade students from a small rural city in the Southeastern United States who were identified by their administrators and teachers as being non-readers. Research has supported the validity and reliability of teacher nominations for identifying students who are at-risk for reading failure (Marr and Allington, 1994). Testing was done individually during May of 1999. All of these children attended self-contained classrooms, and it was assumed that all of these first and second graders were experiencing the same curricula. Currently, as a part of their daily routine, these particular children are instructed from highly phonetic basal readers which comprise an integral part of their reading program. In addition, they experience daily drills from a commercially prepared phonics program.

Verification for non-reader status was achieved by having each child read aloud the primer-level passage from a Qualitative Reading Inventory (Leslie and Caldwell, 1995). Following this screening, 26 students were identified as reading less than 80 % of the words in the passage and were classified by the researcher as non-readers. Of the 26 students in the initial non-reading sample, five were excluded from the study due to labels of functioning as evidenced by

their school records. Three were MR, one was Speech and Language Impaired, and one was Non-Verbal. Therefore, my final sample was comprised of 21 children, with 81% of these being male, 85.7% Caucasian, and 14.3% African-American which correlated positively with racial percentages within the total school population. A total of 66.7% of this study sample qualified for free or reduced lunch as a measure of socioeconomic standing.

The 21 children in the study sample were grouped as follows according to those who had been identified as Learning Disabled and those children with no categorical label.

Group 1 = Grade 1, LD (Learning Disabled);

Group 2 = Grade 1, No label;

Group 3 = Grade 2, LD (Learning Disabled); and

Group 4 = Grade 2, No label.

In order to determine phonemic awareness, each child was administered the Yopp-Singer Test of Phonemic Awareness in which scripted instructions direct that twenty-two words be read and segmented orally by the child (Yopp, 1995) (see Figure 1). Notice mean scores on this test range from 18/22 for Group 3 to a mean score of 20/22 for Group 4.

In order to test for the phonics aspect of literacy, fifteen items were selected from the Bader Reading and Language Inventory (Bader, 1998) phonics subtests. Five items tested initial single consonants, five tested consonant blends, and five tested consonant digraphs. This test was administered by asking the child to pronounce each nonsense word on the list (see Figure 2).

Figure 1. **Yopp-Singer Phonemic Awareness**

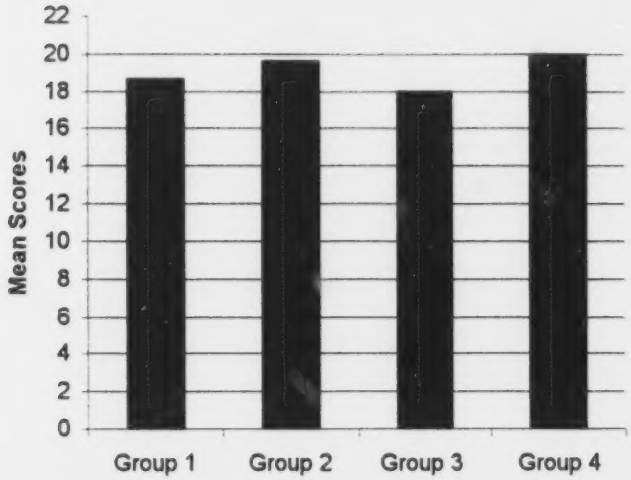
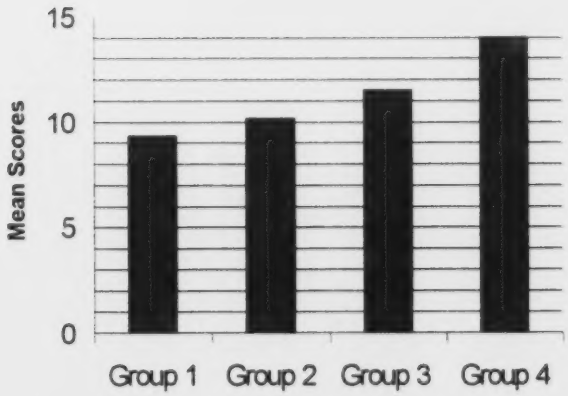


Figure 2. Bader Phonics Test



Based on the same grouping of students, the results indicate the mean scores to range from 9.33/15 for Group 1 to a mean of 14/15 for Group 4.

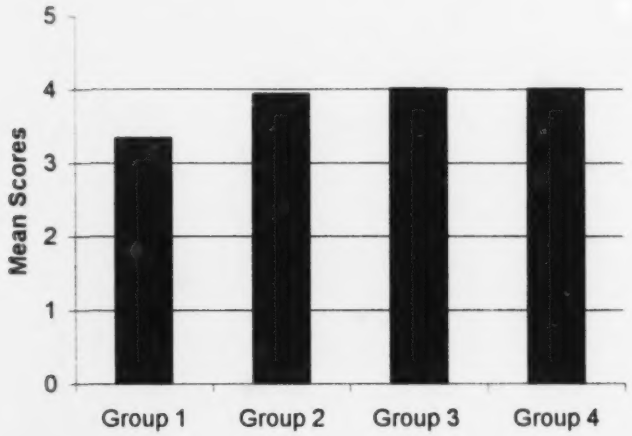
To assess developmental spelling level, each child was asked to write seven words; cement, punishment, vacation, motion, ocean, tomato, and karate. These words were assigned a level from 0 - 5 according to a qualitative analysis developed by Manning, Manning, and Long, 1991 (see Figure 3). As indicated by the graph, the mean spelling score for these non-readers ranged from 3.33/5 for Group 1 to a mean of 4/5 for both Groups 3 and 4, or, in other words, for all the second grade children who were tested.

The combined mean scores for the four groups for each of the three tests were then calculated and the results were as follows: the total Bader Phonics mean score was 10.52 out of 15, the total Yopp-Singer Phonemic Awareness mean score was 19.33 out of 22, and the total mean score for developmental spelling level was 3.86 out of 5 for the entire sample group.

Consider these 21 children, all of whom were non-readers. In contrast to the proponents of skills-based, highly phonetic, initial reading instruction, my findings revealed these students to be phonetically knowledgeable, to possess phonemic awareness, and to spell at a level which includes the recognition of letter name vowels, consonants, and some short vowels. Well then, I ask, "Why couldn't they read?" As a result of my research study, it is apparent that these children had been taught to use only one cueing system - phonics.

From my earlier association with reading instruction, I remembered that in 1968, Heilman even wrote, "Instructional practice which leads to over reliance on one method of word attack is indefensible. A child's ability to recite phonic generalizations does <u>not</u> assure that he has the

***Figure 3*. Developmental Spelling**



ability to apply these generalizations in reading situations" (Heilman, 1968). In 1982, Ferreiro and Teberosky argued that we have no "justification for beginning with mechanical calculations of phoneme-grapheme correspondences to proceed later, and only later, to comprehending written texts." And remember Stephen Krashen's study mentioned at the beginning of this paper regarding the immediate and delayed effects of phonemic awareness training? I quote, "In 10 studies there was no significant difference between the effects of phonemic awareness (training) in measures of reading administered immediately after training or delayed by up to 2 or 3 years."

If we believe children actively construct knowledge through assimilation and re-inventions, then our approach to the teaching of reading must be to provide support for every child in their development of all three cueing systems. This strategy parallels the explanation given to me by one child before taking the Bader Phonics test. When presented with the scripted directions which include giving the student the sound for the /*op*/, this child responded, "Oh, I know "op!" You

can hear it in option. My Grandad has a breathing machine that is called OPTION!" The */op/* sound had significance to him because of his own life experience in which he had concrete, relevant, prior knowledge of the application of the */op/* sound. Reading taught, as a meaningful unit should be our aim rather than the memorization of countless phonics rules. Lucy Calkins (1994) explains the importance of this holistic emphasis in this manner.

> ... we trust that children can learn phonics just as they learned the complex grammar of our language. No one drilled children in the rules that call for "my big red wagon" rather than "my red big wagon." Children simply pick this up because they are talkers, immersed in a sea of language. In the same way, we trust that children will pick up sound-symbol correspondences if we allow them to be readers and writers from the first day of school on, immersed in real experiences with sound and letters.

Additional support comes from Prisca Martens' research in i already know how to read (1996), where she states:

> Complexity comes for children when we step in and try to make learning "easier" by breaking it up into bite-sized pieces. We don't speak, read, write, or listen one letter, sound, or skill at a time and neither do we learn that way. Quite contrary to being linear, the process is cyclical, allowing for zigs and zags, revisiting, and rethinking.

In conclusion, the essence of the present dispute seems to be in the nature of the definition of reading. Is reading the ability to decipher sounds in a fluent manner, or is reading the act of acquiring meaning from written text? It is my belief that reading is the process of globally constructing meaning through dynamic interaction between the reader's prior knowledge, the information suggested by the written language on the paper, and the context of the reading situation itself. This would indicate that true reading is not merely the acquisition of mechanics or text deciphering. I agree with Ferreiro and Teberosky (1982) when they say the process involves "children who actively attempt to understand the nature of the language spoken around them, and in trying to understand it, formulate hypothesis, search for regularities, and test their predictions."

Despite the overwhelming evidence in favor of beginning reading instruction that focuses on meaning and the natural construction of language patterns within a child's prior knowledge base, the battle still rages among educators over early reading strategies. Could it be because we tend to grab on to phonemic awareness and phonics programs that promise a "quick fix" for reading difficulties rather than invest in the necessary teacher training for competent, high-level, holistic teaching strategies?

I have heard that someone made the statement, "Give me a primary child and a good phonics program, and I can teach them to read." But I say, "Give me a primary child and a constructivist, holistic approach to the teaching of reading, and I'll teach them to love to read with understanding."

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